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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/396,873	09/15/1999	BRUCE DICKSON	5577-175	8033

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EXAMINER	
BROWN, CHRISTOPHER J	
ART UNIT	PAPER NUMBER
2134	

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/396,873	DICKSON ET AL.	
	Examiner	Art Unit	
	Christopher J. Brown	2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *3/21/2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-13,15-24,26-32 and 34-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *38* is/are allowed.

6)☒ Claim(s) *2-13, 15-17, 19-24, 26-32, 34-37, 39* is/are rejected.

7)☒ Claim(s) *18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. With respect to claims 2, and 23 the applicant argues that Chang US 5,828,034 would not inherently control the temperature of the data entry device to mask a signature of data entry.

The applicant's intent for his heating element may differ from Chang's intent for his heating element, the applicant does not claim eavesdropping or a feedback control based on detectability of thermal imprints. The preferred embodiment simply provides resistive heating of a keyboard or other input device, as the means for masking (Instant specification, Page 9, lines 11-25). Chang describes the same physical structure with the same function (controlled heating) so it anticipates this limitation. Intention of the invention is not given patentable weight.

Chang teaches a data entry device (keyboard, Col 1 lines 55-57). Chang teaches warming the keyboard and hands, (Col 1 lines 57-64). Warming the keyboard from room temperature reduces temperature differentials, thereby masking thermal signatures as a result of data entry by a user of the data entry device. This reduces the detectability of the signature by eavesdropping. Therefore it would be inherent.

Although the applicant's intent to use a blower to mask auditory data entry sounds may differ from Lipman's intent for his computer fan, the applicant does not claim eavesdropping, or complete masking of data entry sounds. The preferred embodiment simply provides sound waves as the means for masking. Lipman US 5,075,606 describes a physical structure with the same function in proximity to the data entry device (noisy fan) so it anticipates this limitation. Although the frequency of the noise is not disclosed, it is irrelevant as the noise would at least partially mask data entry, even at the wrong frequency.

As per claims 15, and 34, The applicant's intent is to use music and interfering sound patterns to mask auditory data entry sounds, the applicant does not claim eavesdropping, or complete masking of data entry sounds. The preferred embodiment provides interfering sound patterns and music as the means for masking. Mcgregor US 4,052,720 describes a sound control system with the same function as the applicant's invention, so it anticipates the limitations of the instant specification. Applicant admits that it is well known that computers are used in offices, and Mcgregor is directed towards used in an office in masking audio noise. Therefore it would be inherent that Mcgregor mask any noise from a data entry device.

With respect to examiners answer, Group IV does not include claims 16, 22, and 35.

The applicants argue that Chang does not suggest monitoring the external temperature of the device. However Chang does teach a sensor internal of the device to sense the temperature, (Col 6 lines 18-22). The temperature differential between internal and external temperatures in a non-sealed input device, such as a keyboard, would be non-existent. The measurement would have no difference especially if the temperature sensor was directly adjacent to the outside of the device. Therefore temperature sensor would be monitoring external temperature as well as internal in Chang.

As per claim 8, Chang discloses a range of temperatures from room temperature 21C (70F) to 49C (120F), (Col 3 line 46). It would have been obvious to pick a temperature in the middle of this range for user comfort, (Col 1 line 47). Any temperature picked for comfort would be closer to human body temperature than room temperature, and mask the thermal signature left by a user on a data entry device. The heating of the keyboard inherently masks data entry. Intention of the invention is not given patentable weight.

As per claims 13, and 29, Chang discloses heating the data entry device. Chang does not disclose using an infrared heat lamp.
Jacobi discloses an infrared heat lamp for heating, (Col 1 line 55, Col 5 line 3).
It would have been obvious to one skilled in the art to replace Chang's heating element, with Jacobi's heat lamp, because the lamp is economical and efficient, (Col 2 line 39).

As per claim 21, In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Chang teaches that a blower, (fan), may blow temperature controlled air on a data entry device controlling the external temperature to reduce temperature differentials by the user (Col 3 lines 55-60). Chang teaches possible sources of heated air are PC components which may circulate air via a PC fan, (Col 4 lines 4-13). Chang does not disclose a fan is noisy.

Lipman teaches a fan masks sound waves, (noisy fan), (Col 2 line 24).

The intention of the invention, "masking data entry", is not given patentable weight.

Claim Rejections - 35 USC § 102

2. **Claims 2-7, 9-12, 23, 24, 26-28, 30-32, are rejected under 35 U.S.C. 102(e) as being anticipated by Chang US 5,828,034.**

As per claims 2-7, 9-12, 23, 24, 26-28, and 30-32, Chang discloses a heated keyboard, which can control the heat around a set point. Applicant argues that this would not

inherently mask a signature of entry. The Examiner disagrees; the heated keyboard set in the range of human temperature would inherently mask a signature of entry. Therefore Claims 2-7, 9-12, 23, 24, 26-28, and 30-32 are rejected. Please see the first office action on the merits.

Claims 15, 19, 20, 21, 23, 34, 39, are rejected under 35 U.S.C. 102(b) as being anticipated by Lipman US 5,075,606.

As per claims 15, 19, 20, 21, 23, 34, and 39, Lipman discloses a PC fan that is noisy. It is obvious that the fan would be loud, for example shown on page 1 of Fan Noise Solutions [http://www.cpemma.co.uk/]. The applicant argues that the noise would not inherently mask data entry. The examiner argues the noise inherently *would* mask the data entry. Please see the first office action on the merits.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 15, 17, 23, 34, 36, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGregor US 4,052,720 in view of Clausen US 5,611,608.

As per claims 15, 17, 23, 34, 36, and 37, Mcgregor teaches producing random masking noise, (Col 3 lines 20-25). Mcgregor teaches masking with pre-recorded sounds (Music), (Col 3 lines 50-60). Mcgregor teaches adapting the amplitude and frequency of the noise to best adapt the masking, (Col 4 lines 17-31). Mcgregor teaches the system is designed for use in a room, and in an office (Col 4 lines 3 lines 15-20, Col 6 line 65 to Col 7 line 6).

Mcgregor does not teach a computer in an office.

Clausen teaches an office desk designed for use with computers, (Fig 11, 15, 16) It is well known that offices have computers, and computers have data entry devices. It would have been obvious to one of ordinary skill in the art to modify the system of Mcgregor in an office with the computer desk and computers of Clausen to maximize productivity and ergonomic value, (Col 2 lines 61-66).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang US 5,828034.

3. As per claim 8 Chang discloses a heated keyboard, which can control the heat around a set point. Chang discloses the range to be between 70F to 120F Applicant argues that this would not inherently mask a signature of entry. The Examiner disagrees; the heated keyboard set in the range of human temperature would inherently mask a signature of entry. Therefore Claims 8 is rejected. Please see the first office action on the merits.

Claims 13, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang US 5,828034 in view of Jacobi Jr. US 4,727,655.

As per claims 13, and 29 Chang discloses heating a data entry device, and Jacobi discloses using an infrared heat lamp for heating. The applicant argues that one of skill in the art would not look to a heat lamp, and that neither of these references teaches masking data entry. The examiner disagrees. Given that Chang discloses heating a data entry device, it would be logical for one of ordinary skill in the art to look at an infrared heat lamp for heating a desired surface. As written in the previous action the lamp is economical and efficient. The examiner argues that it is inherent that this method would mask data entry. Please see the first office action on the merits.

Claim 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang US 5,828034 in view of Lipman US 5,075,606

As per claim 21, Chang discloses a blower, Lipman discloses a fan. It is obvious that the fan would be noisy, for example shown on page 1 of Fan Noise Solutions [http://www.cpemma.co.uk/]. The applicant argues that the noise would not inherently mask data entry. The examiner argues the noise inherently would mask the data entry. Please see the first office action on the merits.

Claims 16, 22, 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang US 5,828034 in view of Wiklof US 6,232,994

As per claims 16, 22, 34-36 Chang teaches a data entry device, (keyboard) Chang does not teach a phase shifting noise cancellation system.

Wiklof teaches a system that receives a sound signature through a microphone, (Col 6 lines 19-20). Wiklof teaches converting and phase shifting the input into an audio output to cancel the original sound signature, (Col 6 lines 35-43). It would have been obvious to use the noise cancellation of Wiklof with the data entry device of Chang because Wiklof provides a simple inexpesive method of noise cancellation, (Col 4 line 20).

Allowable Subject Matter

4. Claim 38 is allowable due to the limitation of "pre-recorded sounds are recorded sounds of random input into the data entry device" which overcomes the current prior art of record.

Dependent Claim 18 would be allowable if written in independent form, due to the limitation of "pre-recorded sounds are recorded sounds of random input into the data entry device" which overcomes the current prior art of record.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher J Brown whose telephone number is 703-305-8023. The examiner can normally be reached on 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached on 703-308-4789. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Christopher Brown

CJB

10/18/05

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